

Participant 9 and TE Stakeholder Study (Cleaned)

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SUMMARY KEYWORDS

token, question, engineering, system, design, understand, people, economic, book, stakeholders, field, algorithmic, algorithms, interview, guess, engineer, technical, ai, great, greatest challenge

SPEAKERS

participant 9, Livia

Livia 00:11

Okay, so, yes, thank you. Thank you for participating in our study. We're very excited to have you contributing, you're recommended by basically everyone we spoke to so far. And as a reminder, the goal of the study is to better understand what token engineering is, and what are the current practices, needs and challenges of those working in this space. And my name is Livia, and I'll be guiding us through the interview. We're usually joined by a second researcher to he might join us soon or might not maybe we'll just be the both of us. And as a reminder, you may withdraw from any questions you want. You don't need to answer them if you don't feel comfortable. And if you and we'll be recording this meeting and transcribing and if you have any questions before we start

participant 9 01:22

okay, great.

Livia 01:23

This usually takes 45 to 60 minutes and we have another interview right after this one. So we might go a little bit over time, or shorter and yeah, no. Okay, great. And yeah, I might just send you a few questions later if that's okay. If if we get short on time. Okay, so to start, can you share a little bit about your personal journey of how you got involved in your field of work?

participant 9 02:40

Sorry. Yeah, upgrading and updating the book is just my journey in a nutshell.

Livia 03:31

Thank you. Can you Yeah. So how has it been this process of writing the book

participant 9 03:43

I can share with you but I don't understand how this is relevant for. This is not an interview. So, this is very anecdotal. But this will not be I can elaborate very very long. These are very qualitative question. So I'm not sure this is what you need? I mean, I think for I guess what you need, it's like it's a new field and trying to write something about a new domain is quite a challenge because nobody has written a book and you're trying to make sense of something that nobody has made sense of. And, I guess, so it's been a journey. I'm writing the third iteration of the book and every time I feel that I can express my findings, better, so it's not getting boring, if you understand what I mean.

Livia 04:42

Yeah, for sure. I think my curiosity was around exactly that writing a book on a field that is so nascent and the research that might go around it is yeah, probably something very fast changing all the time.

participant 9 05:00

I would say it is. Yeah, it is. It's quite a it's an exciting journey. So it's kind of yesterday I was telling my partner I feel like it's intellectual Tetris. You know what I mean? So I used to like to play Tetris on Nintendo back in the 80s. So and for me, it feels like trying to do put the pieces together the puzzle that nobody has put together yet. So yeah. And there are a few people in the field but most people have a very uni-disciplinary approach to that. And so it gets what makes it a bit more challenging. What I'm trying to do with that is multidisciplinary approach in a way that it's not too shallow. And this is, I guess, my greatest challenge.

Livia 06:01

And how would you define token engineering?

participant 9 06:12

Give me Give me a second because I was writing this yesterday. Let me go. Give me the second I guess I cant find the definition now. Like, I mean, I've written a whole chapter on this. Token engineering consists of four, from my perspective, it consists of four main areas one is the technical engineering part. Then there is the economic engineering, the legal engineering and the political, ethical engineering and all four parts are equally important. So unfortunately, I feel that at the moment, or from the inception of Bitcoin, it was always more the technical and the economic parts that were in the foreground ergo the name token, crypto economics. But the same kind of they were, yeah. So I feel that it's the four areas the technical engineering economic engineering, legal engineering, and ethical, aka political engineering. I've written a whole chapter on that if you're interested in my book, it's also available online for free so

Livia 07:47

yeah, absolutely. Yeah. We'll we'll we'll be adding your book to our research for sure. And what would you say that token engineering is solving that other fields are not solving okay.

participant 9 08:11

I don't understand the question. Token engineering for now. It's not solving too much because it's still very nascent. So can you be a bit more reformulate? So I understand what what the question is about.

Livia 08:24

Yeah. What well, at the moment, I

participant 9 08:25

don't think that the token engineering is not helping too much. The community is too small. It's too niche. And those who are building, actually building stuff usually don't give a fuck about you know, most people they're very even even even [Trent who coined the term or the ocean protocol], a lot of the things don't make sense to me. So I don't know I think it's an emerging domain. And it should be interdisciplinary. But at the moment, it's not. I think. Yeah, if ideally, it would be an interdisciplinary field. Emerging interdisciplinary field of applied research, that gives enough input and intents on input to those who develop a system in a practical way. But basing on science, I guess I'm not quite sure what the aim of the question is, this is why it's hard for me to answer your question, does that make sense what I say

Livia 08:35

yeah, I think it's helpful already. Why would you share it that this question is mostly to understand? So as we're working on the definition of token engineering as the overarching question for the study, understanding what for example, what is the difference between token engineering and crypto economics? If any, or

participant 9 10:20

it's a very, very, very crypto economics or tokenomics, cryptoeconomics very specific to the consensus mechanisms of blockchain networks. Okay. It doesn't have to do anything with a decentralized organization that builds on top of the blockchain and token economics or tokenomics only focuses on the economic aspects of token engineering. But ideally, token engineering should encompass all four areas together. So this is very clear crypto economics focuses on the kind of cryptographic and economic kind of how to make it mathematically really, really hard to cheat the system from an economic perspective. But it doesn't account for you know, the ethical, the legal aspects, privacy aspects, etc. This is just crypto economics. Token engineering should be more than that.

Livia 11:23

What areas of knowledge do you consider essential for token engineering?

participant 9 11:31

Again, I think if you if you read my book is everything is in there. So I think if I tried to, like there is this whole list of areas that are relevant to the different areas of the engineering process. And they go hand in hand. So yeah, I don't have my computer in front of me otherwise, I would read it for you, but I can only say I have this one graphic.

Livia 12:06

It's great to know is there well, we'll do the homework. Yeah.

participant 9 12:10

There is this whole Graphic and it says everything and the chapter is just a few pages. I can send you a link to, but this is the old version of the chapter ideally. Yeah, but the graphic I will send you the graphic. Once we stopped talking, on on telegram if that's okay for you.

Livia 12:32

Yeah, thank you.

participant 9 12:34

Yeah. Okay. Because then you have the whole list, and then they can move on faster.

Livia 12:39

Thank you. Yeah, what would you say are two examples of polar opposite token engineering projects that you have been involved with?

participant 9 12:50

polar opposite token engineering... opposite from which perspective

Livia 12:57

maybe from the areas of reach they had or from the expertise needed or from the nature of the project or anything that might come from you.

participant 9 13:15

So for example, currently, I'm writing a second kind of volume of my book token economy. It's about delta and purpose driven tokens. So I analyze a few token systems. And I guess the polar I don't think it's polar opposites, but I am I analyze a system like co2, kind of biodiversity tokens, where it's about like designing an tokenized incentive system, to incentivize people to protect

the forest elephants in Kenya. And the design of such a system needs to be very different than the design of maker. Very different from the token design of Bitcoin, for example, or other blockchain networks with the token economics, or the tokens, not only the economics but like the tokens design of the token system from the different perspectives of four different perspectives. Very different in Bitcoin, from Maker Dao to the biodiversity tokens because the purpose of those systems are different and the ways to cheat those systems are different. The incentive mechanisms need to be different power structures emerge differently because it's just the difference. is like, one of the pitfalls of many people were trying to design token systems is they they think there is one correct design, but the design always depends on the purpose. And it depends on your stakeholders and it depends on the number of tokens that you apply for your token systems and the role of tokens. And so yeah, so does that make sense? Does that answer your question?

Livia 15:17

Yeah, absolutely. Thank you. And I think you started mentioning already. But what are the challenges you faced personally, in your work? With token engineering, and the challenges of the field also, we can start with?

participant 9 15:34

Yeah, one of the greatest challenge is a very good question. The greatest challenge that I have is, everyone uses their own terminology and they make up fancy words again, I have to and I like \$name \$name. They've contributed so much to the field, but like only trying to study for example, the ocean usecase they, and they're not the only ones. They make up fancy new words, right. So even within stable token system, first they call it the CDP, then they call it the [vault], then another stable token calls it something else. And you have to like the problem is that we don't have standardized words for stakeholder goals or mechanisms. So all these token systems they make up their own words. So if as a potential investor or if as a potential for me researcher you try to understand the design of the token system, you really need to invest so much more mental transaction costs to only understand the different names. The same stakeholder roles have different names in different token systems. Everyone wants to be super creative and give the stakeholders fancy new names, but it makes it so hard to try and understand this and compare it for example to something else. So the sense making is so hard because we don't have standardized names for stakeholders, roles, mechanisms, etc. As one of the greatest challenges. One unified terminology and this makes like the analysis of the system, very opaque, and I don't even know and very often. Yeah, so this was one of the greatest challenges. And the second greatest challenge is, I guess that when you try to when I was trying to this was from an analysis perspective, and when I tried to help teams to design token systems, they always wanted to know how to do it. And they and they always are, and I always said, Well, it depends on the purpose. And it depends on your stakeholders. They wanted to blueprint but we don't have the blueprints yet. Also, even if we have blueprints for standardized use cases, use cases always vary also. So you always have to start by asking yourself what is the purpose of the system that you will want to create? [What are the you want to have capitalism on steroids], you know, so what type of system politically you want to create? And then the kind of the technical, economic and legal aspects are the result of what you want to create and how you want to create it. But people are usually lazy and mentally lazy i want to say or they don't understand that they need that we need to invest especially in this very, still

nascent some time of this ecosystem, where we don't have like patterns and blueprints of how to develop things based on their purpose. Like very often I feel that people want to don't have the patience to ask themselves the important question of like, what is the purpose where are my stakeholders what are the power structures, if I would design it like this, what effect would it have if I would, like on the economics on the power structures on the legal side on the technical side? And very often, that's one issue. And the other issue is that the very often the they ask too many technical questions, and I'm like, it doesn't matter whether you create the token system on etherium or in Bitcoin or on either \$name, let's say. The question is, what do you want to do and how do you want to design it? The infrastructural questions don't have to do anything with the socio economic and political questions of how you design your system. So making people understand that the technical aspects very often are, they're interrelated to a certain extent. For example, when it comes to privacy versus transparency or institutional accountability, they are related to a certain extent, but, but this is a secondary question you ask yourself, after you define what system you want to create, and I think people are very obedient because social and economic system have been served to them on a platter like you, I don't know you live in your family structures and you go to school and everything is so top down that it's really hard for people to think out of the box. This is the greatest challenge that I have when I work with people. They very often have difficulties to think out of the box to understand that they can create whatever they want, but whatever design they apply will also have long term effects and so just thinking about that is overwhelms them very often I feel. so you understand what I mean.

Livia 20:55

Yeah, that's very great insight. I also reflect a lot on that being on the on the social aspect of things. And what do you see as the most pressing needs for the token engineering field to address

participant 9 21:13

I guess, more education, more visibility, and more practical tools. So kind of templates. I'm trying what I'm trying to do is like by writing the next book, analyze use cases and I have like the framework, analysis framework and and kind of high level design qualitative design framework. But I think people need to understand more. That it's not about like, taking an economic mechanism, add a technology, and yeah, we need a lot of re education but like the system is moving so fast, and people are building whatever that I'm just seeing very similar mistakes happen all over again in web three. That happened in web two, just because people are impatient and money. venture capitalist impatience. And they just want to do something, get it out there, not understanding that. And I guess this is probably the the biggest message that we have to transport is the protocol rules, especially if you the more decentralized the system, the token system that you create the harder it is to revert the protocol rules after system has been deployed, because there's so many stakeholders involved and they have to agree to change it. And if you have flaws in your initial token design, like initial conditions matter, and I think this is probably the most important message that the token engineering community needs to get out there initial conditions matter. Because you will never have a perfect system, but any flaws that you need to retro actively amend will be hard to get out of the system because there are already kind of power structures of the system and [whenever upgrading rules] so initial conditions matter.

Livia 23:33

that's a great segue for our next question on ethics. Can you describe the role of ethics in token engineering?

participant 9 23:44

It's one of the four pillars of token engineering

Livia 23:52

Do you have ethical concerns regarding the practice of how ethics has

participant 9 24:00

no ethics and politics is like how we want to design our system is the most important ethical and political question. And this is one of four pillars. In my definition of token engineering. Token engineering has four pillars, economic engineering, technical engineering, legal engineering and ethical engineering, or political engineering politics is ethics. Politics is based on how we decide what to live together, right. So ethical engineering is very important. And I see two important and I again, I have to refer you to my book. There are two the main two main questions are privacy versus institutional personal privacy versus institutional accountability this is one of the greatest design challenges. And the second question around ethics and politics is the power structures in the decentralized organization. If there are power imbalances, most of the systems that I've analyzed they have extreme power imbalances. My ass decentralized most of these systems are really not decentralized. So if we want to the political question of how decentralized or how egalitarian or how much participation, which stakeholders should have is one of the most ethical and political important questions so power structures and privacy versus transparency are the most important. Ethical aka political questions

Livia 25:26

and do you have thoughts on how to increase diversity and inclusivity in the field?

participant 9 25:35

I think that given the fact that token engineering should be an interdisciplinary field, we need diversity of people with different backgrounds and fields. So unfortunately, currently we mostly have engineers. We have fun, and but we need more economists. We need more political scientists. We need more. Economists are different. We need more diverse interdisciplinary teams working on these systems and it's not enough to have like 100 engineers and one economist and 100 engineers and one social scientist or a no political scientists, that's not enough. They should be equally represented because the systems we design, the technology is just a tool of but we design it and for whom we design it. It's a social question, and it's an economic question. It's a political question, not a technological question. So and I think people have it upside down when they hire a team. They only hire the tech part and they forget about the rest and then we have systems that have a technical bias and and they try to reinvent the wheel of political science.

Livia 27:16

I think you broke up a little bit. Can you hear her Mark? No, no, I can't hear. Oh, I think she's gone. So maybe she tried to log back in okay. Yes.

participant 9 29:00

Hi. I don't know if I was. Something happened. I wasn't in. I wasn't. We got disconnected.

Livia 29:10

No worries. Do you mind trying to go back to the zoom so we are recording or do you think it's heavier for your connection?

participant 9 29:18

Yeah. I don't know why. I try Okay.

Livia 29:46

Can you hear me? Hello?

participant 9 29:47

Hi. Yes, I hear you okay. I didn't know where I got chopped off. At some point I so I think what I wanted to say yeah, you people build the technology. Where the railroads goes, the engineer doesn't decide whether where the railroad will go. The engineer decides how to build a railroad network, right. Where the railroad goes is a political decision. It's an economic decision. It's not a technical decision. And the token engineering community or the whole web three community mixes those things up, right just because you know how to code doesn't mean that you understand politics, or economics, or co2 markets, or biodiversity or stable tokens. Okay, you want to design a stable token hire macro economists, the technical aspects obviously, the engineering people do so. The sheer fact that I have to say this is a testament to how brainwashed people are that technology can solve everything technology is just the tool. How I use a knife depends on me whether I use it to cook or as another tool or to kill someone. It's a human decision. Right? And the same is true with technology. Technology is just a tool it's not going to magically solve all our problems. if we want to solve like social and economic problems, we have to we need interdisciplinary teams, teams with various backgrounds. As I said, if you can take the time to go through the chapter on how to design a token system in my book, I listed all the disciplines the major disciplines that are relevant and how they should work together ideally.

Livia 31:39

Great, thank you. What what do you wish for the future of the field? How do you see it? Let's say in the next three years

participant 9 31:56

what do I wish? Yeah.

Livia 32:11

Any specific innovations that you would like to see

participant 9 32:15

I don't I don't understand these questions because they're not practical. I yeah, I wish the world were different, but it's not. So I don't understand can you be more specific. It doesn't matter what I wish, like, what's the point of the question?

Livia 32:31

I mean, you as someone that has an understanding on the field of token engineering and on the development it has been having, what would you like to see for the future of the field? Like how it evolves? What are some developments or innovations that you think would be very helpful for the sustainability of token engineering or for the success of token engineering?

participant 9 33:01

Well, I mean, I don't know I. Maybe I'm to jaded. I can I can already see which direction this whole thing is taking. I hope that token engineering as the field can get more depth. I hope that token engineering of the field will define itself more interdisciplinary than the current practice of

token design in web three is i i hope that more people will take the time to to slow down before they design a token system. Try and understand what they need to account for which teams they need to hire and that yeah, that token engineering is more than just a technological and or economic question and I hope that this can be the token engineering community and that we -like I count myself into that- we can get this message across. But trying to get it across also requires that people want to listen to it so I'm a bit skeptical on that other part. Which is why I think what we need is tools, practical tools that people can use, such as I don't know, I'm trying to work on that, such as a tool set an analysis pattern like a canvas that people can take and say, like, Okay, this is a step by step questions that I have to ask myself before I design a token system, I think, because you can like just talking about it in theory is one thing, but people need practical tools because they don't have time. They're too lazy. And they will just, you know, like hacker mentality wise, like, try to set up a system and think that they can change it after the fact that this was a really like web three. This is even harder than it was web two.

Livia 35:11

Are there any tools that you would like to see more developed or they even don't exist? Or can you share a little bit more on tools that are important?

participant 9 35:24

Well, I think we need more educational materials. And more than so. I don't know what, yea we need more educational material that is a bit more structured than videos. So So you probably need from glossaries to books to, as I said, kind of something like a business model canvas for work, too. You would need a token model canvas, something I'm currently working on so I think other than that, I don't know.

Livia 36:12

Thank you. Yeah, looking forward to see yeah, there's a few people actually, I think would be very happy to collaborate with you. I can send it your way later. And as AI technology continues to advance, and has a potential to significantly impact the development and implementation of token engineering, do you see AI affecting the field of TE and what would be your role in this evolving landscape?

participant 9 36:14

cannot think of anything else. And if you know any people who would like to co-design or Co-develop this token Model Canvas you can send them my way. Or if there's any way I think that this would be very practical, something that a startup can take and go through the questions and maybe even have an interactive framework, but at least have a mental framework. And if you we could create an interactive framework, but that would be also great. Yeah, so I'm trying to figure this one out. Otherwise, it's just a few intellectuals who would really read blog posts about the necessity of interdisciplinary teams and blah, blah, blah, and then they're like, you just need to give them an app, a tool in their hands that they can use and play around with and that visualizes what they need to do or the questions they need to ask themselves. So That's a very important question. So I'm trying to wrap my head around it. But obviously, algorithmic administration, like blockchain networks, and Daos are all about partially algorithmic enforcement of governance rules. So but these algorithms are defined by humans in a very and the parameters are not very flexible, the most flexible parameters that we would have are algorithmic stable token and so if you would combine an algo stable token with an AI that, that takes all the data from, from from from the defi world and the macroeconomics of the real

economy in the Fiat world. We could have much more sophisticated stable tokens than with the very primitive kind of stable token designs that we have now because they're based on too little data and too little too, and the parameters that have to be limited and not enough real time data. So I think the intersection is like there is a big intersection between AI and AI assisted governance for people in the system who makes decisions, but also for algorithmic enhancement of automated decision making within certain parameters. Algorithms are much smarter than we are but how we design those algorithms is again a political question and what the boundaries are and who checks the algorithms and can we check the algorithms, so honestly, this would be an interview for two hours but just in a nutshell, yes, there's big intersection, and people so but before we go that one step, this is like the next step, you know, we first need to figure out the basic token design questions that are relevant before we start applying AI to the token algorithms.

Livia 40:07

Thank you. \$name is thinking very deeply about about that topic, too. If you haven't connected on that, maybe, maybe it's a good opportunity as well.

participant 9 40:20

Ok thank you. Yeah, I haven't talked to her in a while, but it's good to know that she's thinking about this topic, so I might reach out to her.

Livia 40:29

And as a last question, we had a we have a couple of others, but I'll send you on Telegram, if you don't mind. As I like to

participant 9 40:40

send me an email, because on Telegram, to be honest, like email is kind of a to do list for me. So it would be better for me if you send me an email, and I'd also like a deadline of when to answer it. Because currently, like the next 10 days, im very full. But I will try and answer it as soon as I can.

Livia 41:02

Okay, thank you so much. So, yeah, so just to close out. Do you have what what do you think is the average salary of a token engineer? We've been asking that to everyone to try to get a gauge.

participant 9 41:16

I don't know honestly, no, I have no idea also, like, you know, how do you define the engineer like technical engineer, or a political scientist? I mean, we know that the salaries for political sciences are very different than for for engineering. So there is no such thing as a token engineer, I would say, unless you mean a technical engineer and then.

Livia 41:48

Okay. Thank you so much. Sorry about the technical difficulties, and I'm really happy to have talked with you and for sure, we'll be looking at your book and bringing that as a very valuable resource, and I'll send you an email with the last questions and you will be receiving the reporting of this analysis.

participant 9 42:13

What I can do so first of all, I have to apologize because the technical issues were on my side. What I can do with you is share with you, because the the chapter that is now online is from the

second edition, but I've refined that chapter on how to design a token system so I can share it with you. And so you have it in digital format.